

ABSTRACT OF THE DISCLOSURE

An apparatus and a method for testing Alternating Current (AC) coupled interconnects of a circuit using boundary scan methodology are disclosed. A Boundary Scan Cell (BSC) of a transmitting Integrated Circuit (IC) generates an AC signal based on a value of the BSC of the transmitting IC and a reference clock. A Sync Pulse cell at the receiving IC generates a sync pulse signal to the BSC of the receiving IC. The BSC of the receiving IC captures a default phase of the AC signal in relation to the sync pulse signal and also captures a phase of a source of input signal. The BSC of the receiving IC then compares the phase of the input signal with the phase of said AC signal in relation to the phase captured at the sync pulse signal and sends out an output signal based on the comparison.